

From: Gregory Orehowsky
To: victor.a.schneider@Cummins.com
Cc: Khesha Jennings
Subject: Re: AECD questions 313A
Date: 06/21/2006 04:55 PM

In response to #1 below, I have discussed the derate with Khesha and she supports requiring a derate when EGR is shut off. The concern is no different than any other AECD, if you turn off the emission control system, there should be incentive for the driver to fix the problem.

When can Cummins changes to the AECDs?

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To: Gregory Orehowsky/DC/USEPA/US@EPA
cc: Khesha Jennings/DC/USEPA/US@EPA
Subject: Re: AECD questions 313A
06/09/2006 03:22 PM

Greg, here are answers to you 6/8/06 questions:

1. I recall similar discussions with Rick Gezelle around our 2002 AECDs and EGR valves. We agreed then that lighting the check engine lamp was the correct action to take on failures. Our strategy is to light the check engine lamp upon failures and our O&M manuals describe to the operator what action to take - and that is to take the engine to be serviced. Our policy has been and continues to be to light the check engine lamp upon failures with no de-rating of the engine, except to protect the engine. What has changed such that you are now requiring that our engines be de-rated on certain failure modes? Also, what regulation is driving this?

2. The engine does NOT activate [REDACTED] CBI/Ex. 4
(your original question was misunderstood and our answer was not correct).
The [REDACTED] CBI/Ex. 4 is only
utilized when the engine is already operating on the [REDACTED] CBI/Ex. 4 due to
another, appropriate AECD being active. The other two components of the
AECD - [REDACTED] CBI/Ex. 4
(as shown on page 125 of the 06APR AECD document) - do not activate [REDACTED] CBI/Ex. 4

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06/08/2006 11:08 AM
313A
To:
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Subject: Re: AECD questions

Victor:

Regarding Items 1 and 2 in my original e-mail from May 5

1. In the examples given (pages 102 and 109), Cummins must derate the engine when EGR is shut off. EPA wants to ensure owners will take action to fix EGR problems.

2. For AECD 7 part 4, is the calibrations switched to [REDACTED] CBI/Ex. 4 to limit [REDACTED] CBI/Ex. 4
[REDACTED] CBI/Ex. 4 WDV and [REDACTED] CBI/Ex. 4 modulated before
switching to [REDACTED] CBI/Ex. 4

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05/15/2006 11:07 AM
Gregory Orehowsky/DC/USEPA/US@EPA
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Answers below.

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05/05/2006 04:13 PM
questions 313A

To:
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Victor:

Here are questions based on the current version of the document. I will be out next week. You can contact Khesha with any questions.

1. Pages 102 and 109 When engine operates as [CBI/Ex. 4] engine, will the driver notice any performance degradation from the engine or is the warning light the only indication of a problem?

Answer:
No. [CBI/Ex. 4] The check engine light is illuminated for all fault-induced EGR off actions.

2. AECD #7 Part 4 When the engine switched to [CBI/Ex. 4] do all tables go to [CBI/Ex. 4]?

Answer:
Yes, all tables go to [CBI/Ex. 4] These tables are disclosed in AECD #4.

3. AECD #7 Part 6 The aecd mentions controlling [CBI/Ex. 4] To what extent is engine [CBI/Ex. 4] limited?

Answer:
The engine is limited to [CBI/Ex. 4] across the speed range. [CBI/Ex. 4] This will be corrected in the next AECD document revision.

4. AECD #9 Part 3 How is this transient strategy included in SET test, page 234

Answer:
This AECD is NOT included in the SET test. This will be correct in the next AECD document revision.

5. AECD #10 Part 3 Is part 3 of this AECD prevent by the part 2?

Answer:
Part 3 of this AECD is being removed and will be reflected in the next AECD document revision. [CBI/Ex. 4] effectively deal with the issue.

6. When will Cummins submit a complete application

Answer:
Cummins plans to submit the complete application this week.

7. When will you have VMT and ton estimates for the strategies?

Answer:
Estimates of VMT and tons will be provided in the next AECD document revision. Please refer to the attached spreadsheet that explains with AECDs were analyzed with respect to VMTs and tons, which ones were not, and the reasoning for it.
(See attached file: Tons quantification list.xls)

Please let me know if you have any questions.

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